

# Botulinum toxin-related blepharoptosis in emergency department admissions

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Dear Editor,

I have been following your journal with great interest for a long time. Your emphasis on practical applications, clinical observations, and field experiences, as well as the meticulous selection of your publications, serves as a guide for many researchers and academics, including myself. Based on my clinical observations and firsthand field experiences, I would like to share with you a patient portfolio that we have recently encountered frequently in the green zone of the emergency department.

The use of botulinum toxin A (BoNT-A) is now prevalent not only for therapeutic purposes but also extensively for cosmetic reasons. Compared to surgical methods, its less invasive nature and seemingly easy application have made BoNT-A a popular choice among physicians of all specialties and even among auxiliary healthcare workers. This trend has led to widespread cosmetic BoNT-A administration within family circles and among friends.

With the increase in family or friend-to-friend BoNT-A applications among healthcare workers, there has recently been a noticeable rise in unilateral blepharoptosis cases presenting to the green zone of emergency departments. Blepharoptosis arises due to the weakness of the levator palpebrae superioris muscle. On average, the onset occurs 3-14 days after the initial injection and typically resolves spontaneously once the paralytic effect of BoNT-A diminishes.<sup>1</sup> Improper dosage adjustment of BoNT-A and a lack of detailed knowledge of facial anatomy can lead to complications, as can anatomical variations of the supraorbital foramen or neurovascular pedicle.<sup>2</sup> Even when blepharoptosis develops in individuals who have received cosmetic BoNT-A applications at a legal center by trained and experienced physicians, experts in the field can partially reverse the eyelid ptosis. They do this by administering medications such as oxymetazoline hydrochloride or apraclonidine hydrochloride eye drops, anticholinesterase agents, or transdermal BoNT-A injections.<sup>3</sup>

However, the aforementioned group of healthcare workers who administer BoNT-A among family or friends, and the resulting blepharoptosis cases, are patients we have been encountering more frequently in the green zone of emergency departments. The number of such cases is increasing daily.

When considering the gender of patients presenting to the emergency department's green zone with blepharoptosis resulting from BoNT-A application, we observe that the number of men is not significantly lower than that of women.

The application of BoNT-A for the reduction of facial wrinkles may appear simple for a healthcare professional; however, it is crucial to understand the anatomy and be knowledgeable about the causes and treatments of blepharoptosis. Detailed anatomical knowledge of the supraorbital area and orbital roof is essential to prevent incorrect injections into the "danger zones" that increase the risk of eyelid ptosis.

## ETHICAL DECLARATIONS

### Referee Evaluation Process

Externally peer-reviewed.

### Conflict of Interest Statement

The authors have no conflicts of interest to declare.

### Financial Disclosure

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### Author Contributions

All of the authors declare that they have all participated in the design, execution, and analysis of the paper, and that they have approved the final version.

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